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open

RENEWABLES

open your life

OPEN 1XX-ME48

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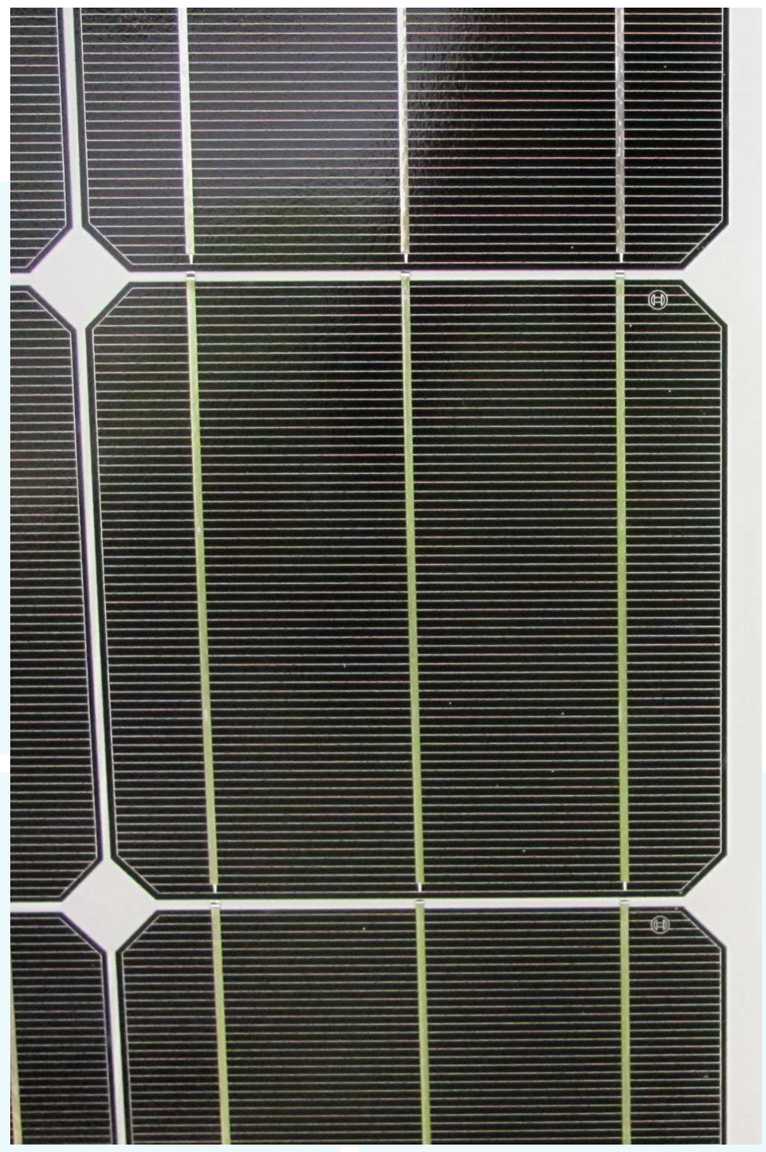
Compact Monocrystalline Technology

Real Power

- Modules available with 180, 190, 195, 200 and 205 Watt nominal power

- Positive Power Tolerance of +5W

- Individual module performance tested on site, based on a TÜV Rheinland calibrated module. 100% of modules checked with a state of the art Electroluminescence tester.



Stable Power

- High Quality monocrystalline solar cells, made by Bosch Solar Energy

- Traditional Open Renewables® quality for durability

Robust Power

- 4mm thick solar glass offers additional protection against the natural elements

- 3rd Generation Frame, made of high quality aluminium profiles, resistant to torsion and corrosion

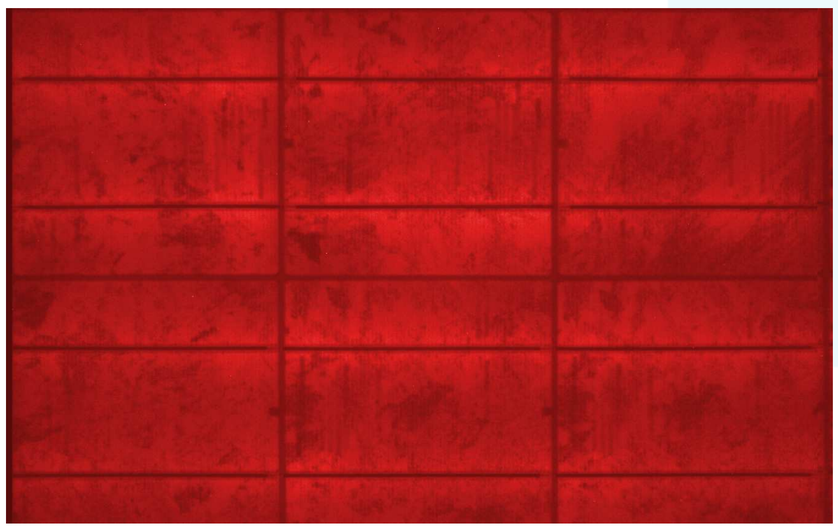


1994 Since

Long Term Manufacturing Experience

- Module manufacturer since 1994

- Built exclusively with excellent materials made in Europe



Warranties

Ten years material and workmanship*

Guaranteed 90% minimum nominal power for ten years*

Guaranteed 80% minimum nominal power for twenty five years*

*Manufacturer's warranty conditions apply

Certificates and Qualifications

All products are certified by TÜV Rheinland in Germany

Open Renewables products are manufactured in an ISO9001: 2008, ISO14001:2012 and OSHAS18001:2007 certified plant

Open Renewables product range:
Monocrystalline 70-260 Watt
Multicrystalline 175-255 Watt

Designed and produced to meet the requirements of IEC 61215 and IEC 61730

- Qualified, IEC 61215
- Safety tested, IEC 61730
- Heavy Snow Load tested
- Periodic inspection

Open Renewables

185-ME48 190-ME48 195-ME48 200-ME48 205-ME48

Electrical Specifications

Data at Standard Test Conditions (STC)*

		Open 185-ME48	190-ME48	195-ME48	200-ME48	205-ME48	
Rated Power	[Pn]	185	190	195	200	205	[Wp]
Peak Power	[Pmax]	185	190	195	200	205	[W]
Tolerance on peak power	[Tol]	+5	+5	+5	+5	+5	[W]
Module efficiency	[η]	14.0	14.3	14.7	15.0	15.5	[%]
Max. system voltage	[Vsys]	1000	1000	1000	1000	1000	[Vdc]
Peak power voltage	[Vmpp]	23.00	23.40	23.80	24.20	24.60	[V]
Peak power current	[Impp]	8.20	8.25	8.30	8.35	8.40	[A]
Open circuit voltage	[Voc]	29.00	29.40	29.80	30.20	30.60	[V]
Short circuit current	[Isc]	8.50	8.55	8.60	8.65	8.70	[A]
Max. reverse current	[Ir]	20	20	20	20	20	[A]

* Air Mass AM 1.5, Irradiance 1000 W/m2, Cell temperature 25 °C

Electrical Specifications

Typical Data at Nominal Operating Cell Temperature (NOCT)** conditions

		Open 185-ME48	190-ME48	195-ME48	200-ME48	205-ME48	
Temperature	[NOCT]	48.4	48.4	48.4	48.4	48.4	[°C]
Mpp power	[Pnoct]	133	137	140	144	147	[W]
Open circuit voltage	[Voc]	26.94	27.12	27.31	27.49	27.67	[V]
Short circuit current	[Isc]	6.80	6.84	6.88	6.92	6.96	[A]
Peak power voltage	[Vmpp]	21.49	21.86	22.04	22.13	22.21	[V]

** At an irradiance of 0.8 kW/m2, AM 1.5, 20°C ambient temperature and average wind speed of 1 m/s

Specifications common to all models

Length (L)	[mm]	1343 ±3
Width (W)	[mm]	988 ±3
Height (H)	[mm]	40 ±1
Weight	[Kg]	16 ±5%
Connector type		TE Solarlok / Weidmuller
Bypass diodes		3
Max. mechanical load		5400 Pa
Cable length (C)	[mm]	1000 / 1000 ±10
Cable cross section	[mm²]	4

Other Characteristics

Technology	Monocrystalline Si
α (Isc) [%/K]	0.035
β (Voc) [%/K]	-0.34
Γ (Pmpp) [%/K]	-0.47

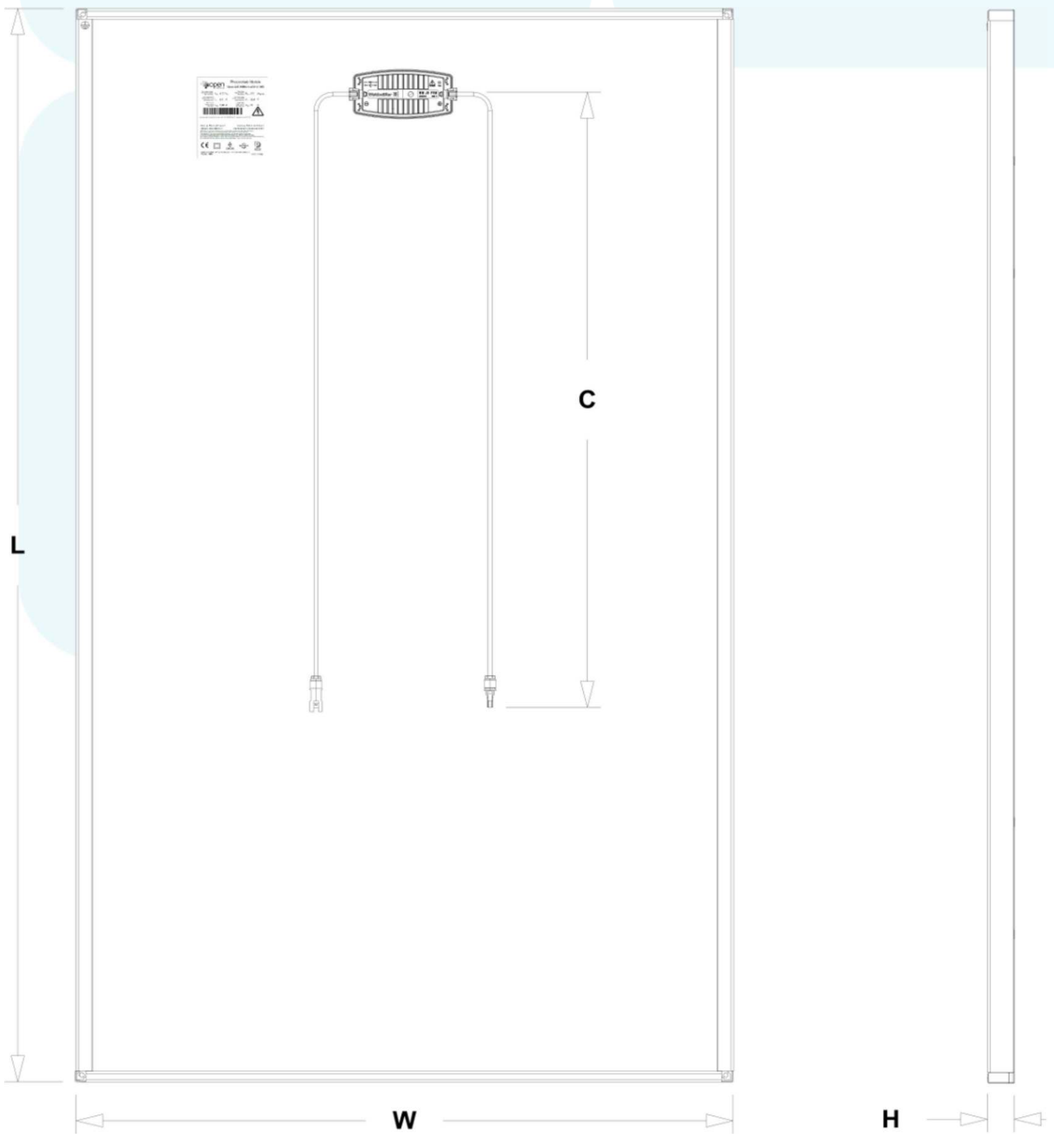
Efficiency reduction from 1.000 to 200 W/m² is about 1%

Electrical Equipment. Installation reserved for qualified professionals. This specification does not dispense from reading and understanding of the relevant manuals

Quality Components

48 High quality monocrystalline six inch cells. Robust aluminium anodized frame. High transmissivity 4mm thick solar glass.
Low temperature coefficient for increased power at high temperatures.

Due to continuous research and product improvement, the specifications in this product information sheet are subject to change without notice.
Specifications can vary slightly. For installation and operation instructions, please see the applicable manuals. No rights can be derived from this product information sheet and Open Renewables® assumes no liability whatsoever connected to or resulting from the use of any information contained herein.



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